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DEPARTMENT OF TRANSPORTATION

COAST GUARD

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Boating Safety Circular 32 discusses problems that are associated with seat fasteners and provides some solutions proposed by an ABYC committee. This issue also lists past and present defect notification and recall campaigns.

SEAT FASTENERS CAN LET YOU DOWN

The American Boat and Yacht Council (ABYC) is currently working on a standard for seat fastenings for boats. It will probably be a year or more before the standard is published, but in the meantime several recommended practices have been developed.

Several serious accidents have been caused when the helm seat collapsed or came loose from the boat during critical maneuvers. The operators were seriously injured (at least one broken back) and swimmers who were run down sustained crippling injuries. Several fishermen have been thrown overboard when the fastenings on their pedestal seats pulled out of a plywood deck.

The ABYC committee discovered that the lateral force on a seat in a boat can exceed four to five times the weight of the person sitting in that seat. In other words, it is conceivable that a snap turn in rough water could exert as much as a 1000 pound pull sideways on a seat. In the case of a pedestal seat, this in turn could exert a 3000 or 4000 pound pull on the fasteners around the base: too much for screws in plywood, particularly after the plywood has gotten wet.

The committee also found that a healthy young man can exert 1500 to 2000 pounds of force when bracing his feet between a foot rest and the seat back. This force is multiplied by the lever action of a pedestal seat assembly.

Most of the accidents which have occurred involved a seat which was held down by gimlet or sheet metal screws fastened through the plywood or fiberglass cockpit sole. In most cases the plywood was wet and in some cases had turned black from contact with the screw, indicating some incipient rot. The common practice of fastening the seats in a boat

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over the top of indoor/outdoor carpeting or vinyl fabric almost guarantees that the plywood will eventually be weakened by moisture. The ABYC committee agreed that the best method for fastening a seat was through-bolting with generous sized washers or backing plates. Some types of blind fasteners might offer an equivalent level of integrity to through-bolting; however, these should be tested, since several engineers reported having encountered failures of some types of blind bolt fasteners.

Some engineers reported successful experiences with tapping plates placed underneath the cockpit sole and fastened with self-tapping stainless steel screws. That installation must be done very carefully, because it is easy to strip out the aluminum plate if the pilot hole is drilled oversize. Finally, if all else fails, wood screws or stainless steel sheet metal screws can be made to hold, if they are large enough and if they enter at least one inch of solid wood underneath the plywood.

One engineer reported successful use of #14 x 1 3/4" stainless steel sheet metal screws. They have more thread--and therefore more holding power--than the conventional tapered wood screw. Even with long screws of adequate size, care should be taken against weakening of the wood by moisture and rot. A teaspoonful of wood preservative squirted into the pilot hole before sinking the screw might make such a fastener more durable.

The recall list includes new campaigns as well as old ones that are still going on. The new campaigns begun since the previous release on the subject, follow:

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
AERO-GLAS BOAT CO Old Hickory, TN	Phantom Outboard	81	Level Flotation.
COBIA BOATS Sanford, FL	18-ft Cuddy Odyssey	82	Level Flotation.
CAMPION INC	180 Alert, 160 Arrow		Level Flotation.
CHECKMATE BOATS Bucyrus, OH	All Models		Defective Seats.
DAWSON BOAT CO Pensacola, FL	15S	82	Level Flotation.
DYNAFLYTE MANUF CO INC Ft Walton Beach, FL	Dynaflite 17	81	Level Flotation, Missing Capacity Plate.
FIBERGLASS PLASTICS INC Jacksonville, AR	15, 16, 17-ft Outboard	82	Missing Capacity Labels.

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
FIM PLASTICS New Florence, MO	15ft Capri	81	Safe Loading, Safe Powering, Improper, Display of Labels, Level Flotation.
GALAXIE BOATS INC Westminster, CA	18-ft V Hull	81	Flotation.
INBOARD ENGINES UNLIMITED Paramont, CA	Picklefork	80	Safe Powering, Level Flotation.
INTERCEPTOR MARINE PROD Tulsa, OK	11-ft Runabout		Level Flotation.
M & L FIBERGLASS Memphis, TN	M & L Sportsman	81	No Capacity Label.
NAVCO OUTDOOR PROD Ft Walton Beach, FL	Mini Boat	82	Missing Capacity. Information.
NEODESHA PLASTICS Neodesha, KS	9-ft Dinghy	81	Safe Loading.
NORTH RIVER BOAT MANUF Roseburg, OR	Standard Sled	81	Safe Powering.
PETE'S PLASTIC BOATS Blue Hill, ME	9-ft Dinghy	81	Safe Loading, Flotation.
SEA SPRITE BOATS INC Crescent City, IL	1570BR Sea Raider		Safe Loading, Flotation.
SIERRA MARINE Oroville, CA	Solano 23	81	Fuel System Standard; Fuel Fill/Tank ground.
SKIPPER LINER HOUSEBOATS La Crosse, WI	All		Under size blower.
TENNESSEE VALLEY FIBERGLASS Huntsville, AL	VI Fish & Ski	81	Flotation.

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
THUNDERCRAFT BOATS INC Knoxville, TN	Titan 15-ft O/B		Flotation.
TIDE CRAFT INC Minden, LA	14-ft Outboard	81	Level Flotation.

THE FOLLOWING ARE CAMPAIGNS STILL IN PROGRESS THAT BEGAN BEFORE APRIL 1982, THE DATE OF THE LAST RELEASE:

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
ANGLER BOAT CORP Miami, FL	V-17 Hard Deck	81	Safe Loading.
ANSWER MARINE Hialeah, FL	15-ft Runabout	81	Level Flotation.
ALUMAWELD Eagle Point, OR	Model 1542	81	Level Flotation.
ARRIVEE Anaheim, CA	14-ft Sunray	81	Level Flotation.
BASS UNLIMITED Lebanon, MO	Bass Tracker III	81	Level Flotation.
BAYLINER MARINE INC Seattle, WA	Bayliner Force	80	Level Flotation, Capacity Plate not Permanent.
CAMPION INC.	17-ft Campion	81	Level Flotation.
CAROLINA BOAT CO Lumberton, NC	14-ft x 36-in & 14-ft x 48-in plywood boats	81	Level Flotation.
CATALINA BOAT MFG. INC. Orange, CA	Caribbean 18-ft Tri Hull	80	Capacity Plate not permanent; Basic Flotation.
CRITERION CO. Swansea, MA	15-ft Sea Swan	82	Level Flotation.
CRUSADER BOATS Anaheim, CA	12-ft Micro Pantera	80	No Capacity Label.

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
CUSTOM FIBERGLASS Boyce, LA	7-ft Scamp	79	Level Flotation.
DELHI MANUF CORP Delhi, LA	Bass Boss Pro 40	82	Safe Loading.
HEWESCRAFT ALUMI CRAFT Colvile, WA	14-ft & 18-ft River Runner	81	Level Flotation.
HONDO BOATS INC Three Rivers, CA	18-ft Pantera Jet	81	Flotation.
HYDRA-SPORTS Nashville, TN	2400 CD & I/O	81	Electrical Standard - Battery terminal protection.
IMAGE BOAT CO Lake Hopatcong, NJ	15-ft Mark 150	80	Safe Loading.
INDIAN RIVER BOATS Stuart, FL	14-ft Outboard	82	Safe Loading; Safe Powering; Level Flotation.
KOFFLER BOATS INC. Junction City, OR	Pram 10	80	Safe Powering.
MERCURY MARINE Fond Du Lac, WI	MERCRUISER 898, 228, 250 & 260 Model stern-drives with serial nos. MCM 898: 4876492-4921067 MCM 228: 4902422-4903164 4877810-4879209 MCM 250: 4879742-4880259 MCM 260: 4908914-4909217		Defective wiring harness may cause fire.
MERCURY MARINE Fond Du Lac, WI	25HP Outboard Motors Serial Numbers 5705532 - 5854016		Defective Steering Handle.
MERCURY MARINE Fond Du Lac, WI	Dual Mercruiser I Installations		Wear on spline connecting steering lever to unit.
MIDDLE TENNESSEE FIBERGLASS Tullahoma, TN	Bumblebee V174	81	Level Flotation; Safe Loading & Powering.

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
MURRAY CHRIS-CRAFT INC Bradenton, FL	17-ft OSS Inboard	81	Basic Flotation.
NORRIS CRAFT BOAT CO La Follette, TN	17-ft 1700 SPB	80	Safe Loading & Powering; Level Flotation.
PIERCE ARROW BOATS INC. Anaheim, CA	TH-1800	81	Basic Flotation.
RAYSON CRAFT Gardena, CA	21-ft Day Cruiser	78-79	Fuel System Std. -No antisiphon protection, Incorrect fuel hose.
RANDALL CRAFT Cantonment, FL	14-ft John Boat	81	Level Flotation.
SCARBOROUGH BOAT WORKS	26-ft Open Sport Boat	78-79	Hull Identification Number.
SEA RAIDER BOATS Sandusky, OH	1500	79	Safe Loading.
SORENSON MARINE Seattle, WA	10-ft Semi-Vee	81	Safe Loading; Safe Powering; Level Flotation.
THE SPORTS SHOP	15-ft Jon Boat	81	Level Flotation.
SUMMIT PRODUCTS Brisbane, CA	Taymore Rafts Model 9870-3 & 9870-5	81	Poor seams on 2, 4, & 6 man rafts.
TWO GUYS FABRICATION Medford, OR	16-ft Sled		Level Flotation.
THERMO ELECTRON CORP.	Engine Model CS-CH-1645, Serial No. 33594 & below		Electrical Standard: Defective distributor.
THUNDER BOLT BOATS	TB-159	82	Safe Loading.
VOLVO PENTA OF AMERICA	AQ145, up to and including serial number #5474		Defective fuel line on engine.

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
WELLCRAFT MARINE CORP. Sarasota, FL	310 Sun Cruiser	79-80	Electrical System Std.- Isolation of electrical component from gasoline fuel source.
WINCHESTER BOATS Greenville, NC	Model 18 Dolphin	80	Safe Powering; Level Flotation.
YORKTOWN YACHTS Wilmington, CA	All		No Hull Identification Numbers.
ZEPHYR St Augustine, FL	Z-183	79	Safe Loading; Level Flotation.

The Onan Corporation has advised the Coast Guard that a potential safety hazard may be present in the starters (Onan part no. 191-1246) installed on model MCCK generator sets shipped by Onan between March 1, 1981 and December 31, 1981. The problem involves the gasket on the commutator band on the starter. It is possible that the gasket may not have been installed with the band. Because of this it is possible that gasoline fumes may enter the starter and cause an explosion. The following companies have been identified by Onan as having received the possibly defective generator sets. If you are the owner of an Onan MCCK generator set built at the time indicated it is recommended that you contact the dealer who sold you the boat, the Onan Corporation, or an Onan dealer to determine if your generator is one of those involved in the campaign.

ALUMINUM CRUISERS INC
AMF HATTERAS ROBALO
BAYLINER MARINE CORP.
GIBSON FIBERGLASS
LAZY DAYS MANUFACTURING CO.
SEA RAY BOATS INC
SOMERSET BOAT CO.
UNIFLITE INC.

The Airpax Division of the North American Phillips Corporation, Cambridge, Maryland, has advised the Coast Guard that some of their T-11 model circuit breakers contain a defect which may cause the breaker to fail to function under certain conditions. The company is conducting a recall campaign through several firms that have used the circuit breaker.

The defective T-11 circuit breakers were manufactured between June 25th and December 31, 1979 and can be identified by the date stamped on the side of the switch body. The following companies have received the defective switches. If you are the owner of one of these boats, you are advised to contact your dealer or the manufacturer to determine if your boat may be involved in this campaign.

BANGOR PUNTA MARINE
MARINER YACHT CO. INC.
VIKING YACHT

Dutchman Fiberglass Products, Monroe, Washington, has been conducting a campaign for level flotation on the 6 and 8 foot Pilchuck models. Because Dutchman does not have a list of the first purchasers of the boats the campaign has not been too successful to date. Any owners of these models are urged to take the boats to their dealers or contact the company regarding correction of the problem.

The Coast Guard has learned that several boat companies which were conducting defect notification campaigns have gone out of business without completing the campaigns. If a manufacturer has not notified the first purchasers of the product of the defect, the Coast Guard tries to get the list of first purchasers and write to all, telling them of the problem and urging them to take the boats to a dealer or marine repair facility and have the problem corrected. Sometimes lists are not available, making other methods, such as news releases, the only way of notifying owners about possibly defective boats. Listed below are the names of several companies that have been reported to the Coast Guard as having gone out of business while conducting a defect notification campaign:

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
BELL INDUSTRIES/ TAHITI BOAT DIV. Cerritos, CA	18-ft Outboard	80	Level Flotation.
DON HILL RIVER BOATS Springfield, OR	16-ft McKenzie Driftboats	80	Safe Loading
DYNAMAGLAS BOAT CO. Sarasota, FL		78-79	Fuel System Std.- Incorrect fill hose, Fill fittings ungrounded, Electrical System Standard - Battery improperly vented.
GRAYLING INC. Bloomington, MN	11-ft Sportabout	79	Safe Loading.
JACECRAFT	15-ft Bassboat	81	Level Flotation.
MARLIN BOATS OF WASHINGTON Renton, WA	Various Models		No Capacity Label.
M. S. V. INC. Hollywood, FL	Celebrity 38		Fuel System Std: Fuel Tank Fittings located below the top surface No Antisiphon Protection.

MANUFACTURER	MODELS AFFECTED	YEAR	PROBLEM
P & D BOAT CORP. Hialeah, FL	All		No Certification Plate; Fuel System Standard Noncompliances; Electrical System Std. - Batteries not tied down; Terminals not booted.
SAIL-OAR BOATS Newberg, OR	12 & 14-ft	80	No Certification or Capacity Label.
SCOTT BOAT CO. Tell City. IN	1680 O/B	80	Safe Loading, Level Flotation.
SEMINOLE BOAT CO. Valdosta, GA	14-ft Glass Glide	80	Level Flotation.
SEA SAFE MARINE Charlotte, NC	15-ft Calypso	81	Level Flotation.
THOMPSON BOAT CO. Peshtigo, WI	Sidewinder 16SS Outboard	79	Level Flotation.
SINTERPLAST INTERN'L Monroe, WA	11-ft Pioneer 12	78	Level Flotation; Display of Capacity Information.
SONSHIP BOAT MANUF. CO. Ferndale, WA	9-ft 6-in dinghy	80	Level Flotation.
STINGER BOATS INC. Nashville, TN	14-ft Hustler	81	Safe Powering.
STINGER BOATS INC.	Various	73-78	Improper Certification and Capacity Plate.
STINGER BOATS INC.	Honcho, Hustler, Twister	81	No Certification Label.
WATERCRAFT INC (Formally HERMAN'S BOAT WORKS)	16-ft Fish & Ski	80	Level Flotation.
WILDERNESS PRODUCTS CO. Cumming, GA	17-ft Bass Boat	76	Safe Powering.
YACHT SERVICE INC Seabrook, TX	8-ft Outboard	80	Level Flotation.

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